REMARKS

This Response is submitted in reply to the final Office Action dated April 17, 2008, issued in connection with the above-identified application. Claims 1, 5, 6 and 13 are all the claims pending in the present application. By this Response, no claims have been amended and no new matter has been introduced. Thus, favorable reconsideration is respectfully requested.

In the Office Action, claims 1, 5, 6 and 13 have been rejected under 35 U.S.C. 103(a) as being unpatentable over Samson et al. (U.S. Patent No. 4,654,857, hereafter "Samson") in view of Brightman et al. (U.S. Publication No. 2006/0292292, hereafter "Brightman"). However, the Applicants assert that the cited prior art fails to disclose or suggest all the features recited in at least in independent claims 1 and 13.

Specifically, claim 1 recites the following features:

"[a] data transmission/reception apparatus for performing a data transfer by a pipeline technique between a predetermined number of processing sections, each processing section being capable of performing a data process and the predetermined number of processing sections being two or more, said apparatus comprising:

a predetermined number of intermediary sections for interconnecting a first data processing section and a second data processing section and allowing data processed by the first data processing section to be transmitted to the second data processing section, the first data processing section and second data processing section being adjoining data processing sections, and said predetermined number of intermediary sections being smaller by one than the predetermined number of processing sections,

wherein the first data processing section includes a transmission section for providing connection to said predetermined number of intermediary sections to transmit the data to the second data processing section; and the second data processing section includes a reception section for providing a connection to said predetermined number of intermediary sections to receive the data transmitted from the first data processing section, and each predetermined number of processing sections being either an active processing section or a passive processing section, and

wherein said intermediary sections generate a data queue for retaining data to be transferred when both the first data processing section and the second data processing section are the active processing sections, and said intermediary sections do not generate the data queue when either the first data processing section or the second data processing section is the passive processing section."

The features noted above are similarly recited in independent claim 13. Additionally, the above features of the present invention are fully supported by the Applicants' disclosure.

In the Office Action, the Examiner relied on Samson in view of Brightman for disclosing or suggesting the features of independent claims 1 and 13. Specifically, the Examiner relied on Samson for disclosing all the features of claims 1 and 13, except for a data transmission/reception apparatus that includes a predetermined number of processing sections or means being either an active or passive. The Examiner relied on Brightman for overcoming this deficiency in Samson, and disclosing or suggesting this feature.

However, the Applicants asset that at least the following features of independent claim 1 (and similarly recited in claim 13) are not believed to be disclosed or suggested by the cited prior art:

1) data transmission/reception apparatus for performing a data transfer by a pipeline technique between a predetermined number of processing sections;
2) a predetermined number of intermediary sections for interconnecting a first data processing section, and a second data processing section, wherein the predetermined number of intermediary sections are smaller by one than the predetermined number of processing sections;
3) a first data processing section that includes a transmission section;
4) a second data processing section that includes a reception section; and
5) a predetermined number of processing sections being either an active processing section or a passive processing section.

With regard to Samson, the reference fails to disclose of suggest the following features noted above. Samson fails to disclose or suggest "a data transmission/reception apparatus for

performing a data transfer by a pipeline technique" of the present invention (i.e., as recited in claims 1 and 13).

In the Office Action, the Examiner alleges that a "pipeline technique" as claimed in the present application is disclosed in Samson. However, although Samson appears to use the phrase "pipeline technique," the pipeline technique disclosed in Samson is clearly different from that recited in claims 1 and 13.

Specifically, as illustrated in FIG. 2 of Samson, data is transferred after actions called "CYCLE ARBURATION" and "CYCLE DEFINITION" are sequentially performed. As described in Samson, the performance of these sequential actions is the pipeline technique. On the other hand, in the present application (as recited in claims 1 and 13), the pipeline technique is used to perform data transmission by stages. That is, data is processed and transmitted on a step-by-step basis e.g., process A -> data transmission -> process B -> data transmission -> process C. Therefore, the pipeline technique of the present application and the pipeline technique disclosed in Samson are clearly different.

Additionally, Samson fails to disclose or suggest the claimed "predetermined number of intermediary sections" of the present application (as recited in claim 1 and similarly recited in claim 13). Although a "bus structure" disclosed in Samson is considered to correspond to the "intermediary means" disclosed of the present application, Samson fails to disclose or suggest at least a predetermined number of intermediary sections being smaller by one than the predetermined number of processing sections.

Finally, Samson fails to disclose or suggest the claimed "first data processing section that includes a transmission section" and a "second data processing section that includes a reception section" of the present application (as recited in claim 1 and similarly recited in claim 13). In the Office Action, the Examiner considers the claimed first data processing section and the second data processing section as corresponding to the predetermined number of processing sections disclosed in Samson.

However, in Samson, the processing sections appear to be synchronous with respect to each other. On the other hand, the respective processing sections of the present application, such

as a stream input section and a deciding section, perform respective processing independently and individually. That is, in the present application (as recited in claim 1 and similarly recited in claim 13), the processing (function) performed by each of the processing sections is different and independent from each other, which is technically and functionally different from the processing sections disclosed in Samson.

As noted above, the present invention, as recited in claims 1 and 13, is clearly distinguished over Samson. Additionally, after a detailed review of Brightman, the reference fails to overcome the deficiencies noted above in Samson.

The Applicants asset that Brightman fails to disclose or suggest the claimed "predetermined number of processing sections being either an active processing section or a passive processing section (as recited in claim 1 and similarly recited in claim 13). In the Office Action, the Examiner points to the use of data queues in Brightman. However, "an active processing section" and "a passive processing section" are not disclosed or suggested in Brightman.

Based on the above discussion, at least the following features of the present invention (as recited in claim 1 and similarly recited in claim 13) are not believed to be disclosed or suggested by the cited prior art:

1) data transmission/reception apparatus for performing a data transfer by a pipeline technique between a predetermined number of processing sections;
2) a predetermined number of intermediary sections for interconnecting a first data processing section, and a second data processing section, wherein the predetermined number of intermediary sections are smaller by one than the predetermined number of processing sections;
3) a first data processing section that includes a transmission section;
4) a second data processing section that includes a reception section; and
5) a predetermined number of processing sections being either an active processing section or a passive processing section.

Accordingly, no obvious modification or combination of Samson and Brightman would

result in, or otherwise render obvious, independent claims 1 and 13. Likewise, no obvious modification or combination of Samson and Brightman would result in, or otherwise render obvious, claims 5 and 6 at least by virtue of their dependency from independent claim 1.

Based on the foregoing, the Applicants respectfully submit that all the pending claims are patentable over the prior art of record. Thus, the Applicants respectfully request that the Examiner withdraw the rejections presented in the Office Action dated April 17, 2008, and pass the application to issue. The Examiner is invited to contact the undersigned attorney by telephone to resolve any remaining issues.

Respectfully submitted,

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2008.07.17 12:45:43 -04'00'

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July 17, 2008